

### Remarks

Claims 24 to 44 are before the Examiner. Claim 36 has been amended. The Examiner's remarks in the Office Action are addressed below.

#### Claim Rejections – 35 U.S.C. 112, second paragraph

The Examiner rejected claim 36 under 35 USC 112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claim 36 has been amended to be dependent on claim 29. Accordingly, the Section 112 rejection of claim 36 should be withdrawn.

#### Claim Rejections – 35 U.S.C. 103(a)

The Examiner rejected claims 24-44 under 35 U.S.C. 103(a) as being unpatentable over Velthaus et al (U.S. 5,505,986) in view of McKee et al., (U.S. 5,906,857). The Applicant respectfully disagrees with the Examiner and offers the following rebuttal of the rejection.

The '986 patent is directed to a deposition process where the selection of a substrate temperature during deposition is key to eliminating the need for subsequent annealing to form and crystallize the phosphor material. The deposition process is a multi-source process which permits the control of the individual temperature and thus of the flux, of each of the deposition source materials. This patent is silent as to the provision of coating rate monitors that are shielded from one another at each source to achieve the desired stoichiometry for the deposited phosphor composition.

The '857 patent teaches the deposition of vapourized material from a source or sources using shutters to control emission parameters which are controlled by a control system. During deposition, a deposition rate monitor is provided inside the sources and as such is shielded from materials being evaporated from other sources. The monitors are used to determine how long the shutters for the sources should be left open to cause a burst of evaporant with a defined mass to be emitted from the source. (i.e.,  $\text{mass} = \text{rate of evaporation} \times \text{time that the shutter is open}$ ). The purposes of the rate monitors and shutters in the '857 patent are to meter out pulses of evaporant with a controlled mass from the sources sequentially so as to be able to deposit precisely

controlled sequentially deposited layers of different composition one atom thick on the deposition substrate to form a laminated film with a composition that is heterogeneous on an atomic scale. The monitors do not therefore monitor temporal variation for controlling the sources as presently claimed but rather act to control the opening and closing of the shutters.

In contrast, in the present invention the deposition rate from the sources is independently controlled at a point outside the sources and in proximity to the deposition substrate to effect deposition from all of the sources simultaneously to form a film of homogenous composition and with a controlled ratio of elements. The temporal variation is used to control and adjust the vapour deposition of each of the sources to obtain homogenous temporal deposition of the composition. This is not taught or suggested in the '837 patent.

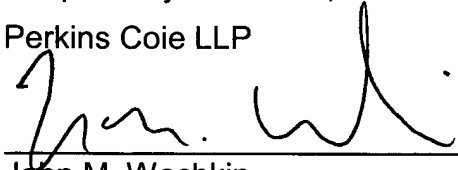
As neither of the references alone or in combination discloses nor suggests the use of independent coating rate monitors at each source that are independently shielded from one another, and further that the monitors then control the vapour deposition of the sources, it is asserted that they cannot render obvious the claimed invention because each and every limitation of the claims is not met. Furthermore, even if the references together disclosed all the features of the claims, the Office Action does not identify where in either reference one of ordinary skill in the relevant art would find the requisite motivation for combining the references.

**Conclusions**

For the reasons given above, Applicants respectfully request reconsideration of this application and timely allowance of the pending claims. Applicants submit that the pending claims are in condition for allowance.

Respectfully submitted,

Perkins Coie LLP

A handwritten signature in black ink, appearing to read 'John M. Wechkin', is written over a horizontal line.

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